

(19) World Intellectual Property
Organization
International Bureau



525215

(43) International Publication Date
4 March 2004 (04.03.2004)

PCT

(10) International Publication Number
WO 2004/018489 A1

- (51) International Patent Classification⁷: **C07F 17/00**,
C08F 4/60, 10/00
- (21) International Application Number:
PCT/EP2003/009125
- (22) International Filing Date: 18 August 2003 (18.08.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
102 39 275.7 22 August 2002 (22.08.2002) DE
60/415,865 3 October 2002 (03.10.2002) US
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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- Published:**
— *with international search report*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: MONOCYCLOPENTADIENYL COMPLEXES

(57) Abstract: Monocyclopentadienyl complexes in which the cyclopentadienyl system bears at least one uncharged donor bound via a boron-containing bridge and comprising one or more atoms of group 15 and/or 16 of the Periodic Table of the Elements and is bound to a metal selected from the group consisting of titanium in the oxidation state 3, vanadium, chromium, molybdenum and tungsten, a catalyst system comprising at least one of the monocyclopentadienyl complexes, the use of the catalyst system for the polymerization or copolymerization of olefins and a process for preparing polyolefins by polymerization or copolymerization of olefins in the presence of the catalyst system and polymers obtainable in this way.

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